

Codings on linear orders and algorithmic independence of natural relations

Bikmukhametov R.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2014, Pleiades Publishing, Ltd. We study an algorithmic dependence of natural relations on linear orders relative to the class of their computable presentations. We give complete description of possible combinations of natural relations for which there is a computable linear order such that in any of its computable presentation a given combination of relations is not computable.

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Keywords

algorithmic independence, block relation, coding, computable presentation, density relation, left limit relation, linear order, neighborhood relation, right limit relation